

Shoulder Protection System

Abstract

This invention is a shoulder pad for football, hockey and other contact sport players with an external semi-rigid articulating system comprised of a Collar, a Sternal Plate, a Back Plate and three Epaulets. The entire system is designed to protect the shoulders and upper body by dissipating the force of a blow and then redirecting any residual force to the strongest load bearing parts of the body behind and on the sides of the neck where the collar section rests. while protecting areas of the upper body (namely the plexus of nerves exiting at the sides of the neck [Erb's Point]; the collar bone [clavicle]; the A-C joint [Acromio-Clavicular Joint]; the shoulder blades [Scapulae]; the spine; the breast bone [sternum]; the ribs; and underlying vital organs that are prone to injury. The overall design also transforms the shoulder pad concept from one of purely protecting the wearer to one of an offensive hitting platform. The semi rigid plastic covers strategically placed and anatomically specific foam padding eliminating any unnecessary padding and reducing overall weight. The Collar is relatively narrow in relation to the width of the shoulders so as to provide freedom for upward movement of the outer part of the shoulders without appreciable interference. The first epaulet is fixed to the collar and the second epaulet rest on top of the first and is hinged with supporting arms from the front and the back of the collar. The

hinge mechanism is designed so the wearer can move freely upwardly upon upward movement of the outer part of the shoulders, but locks when downward force is applied creating a protective channel for the shoulder and related structures.

PAT No	PAT Date	Inventor	Description
363,170	May., 1887	Ridgill	knee protector - springs
833,546	Oct., 1906	Pierce.	body protector
1,094,865	Apr., 1914	Pierce	Foot Ball Protective Apperal
1,600,410	Sep., 1926	Hartman	Shoulder Guard
1,846,193	Feb., 1932	Glahe	shoulder pad
2,108,336	Feb., 1938	Helland	body protective armor - shoulder pads
2,545,039	Mar., 1951	Mitchel	Shoulder pads - make space above shoulder and in front
2,741,767	April, 1956	Weeks	hinge for football shoulder pads - very interesting - has collar
2,761,143	Sep., 1956	Martin et al.	Football Shoulder Pad
2,953,789	Sept., 1960	Morgan et al.	Football shoulder pads
3,017,639	Jan., 1962	Foley	protective armor for athletic use - shoulder pads
3,044,075	Jul., 1962	Rawlings	protective device - thigh pad

3,127,614	Apr., 1964	Bennett	football shoulder pads and cushion liner therefore
3,146,461	Sep., 1964	Kavanagh	Athletic Equipment - soft shell shoulder pads !!! Good stuff
3,158,871	Dec., 1964	Morgan	should pad construction
3,431,560	Mar., 1969	Austin	shoulder guard for football players
3,514,784	Jun., 1970	McDavid	Protective football Aparatus - neck collar
3,528,106	Sept, 1970	Austin	Shoulder Guard - This is the big daddy of the shoulder pads!!!!
3,740,763	Jun., 1973	Mitchell	football shoulder pad - more movement
3,867,726	Feb., 1975	Owl et al.	Shoulder Guard
4,135,252	Jan., 1979	Latina et al.	Shoulder Pad - arch system near neck
5,173,964	Dec., 1992	Ball et al.	Pivoted adjustable shoulder pad - - shoulder moves with body